WHAT IS CLAIMED IS:

1. A method of forming an encryption key that has a number of bytes, the method comprising the steps of:

reading a sequence of bytes from a memory, the sequence of bytes having a number of bytes that is greater than the number of bytes in the encryption key; and

reducing the number of bytes in the sequence of bytes to be equal to the number of bytes in the encryption key.

2. The method of claim 1 wherein the reducing step further includes the steps of:

assigning each byte in the sequence of bytes to one of a number of groups so that each group has one or more bytes, the number of groups being equal to the number of bytes in the encryption key; and

reducing the number of bytes in each group to a single byte.

3. The method of claim 2 wherein the reducing the number of bytes in each group to one byte step further includes the steps of:

determining a base-N value for each byte in a group;

summing together the base-N value of each byte in the group to form a base-N summed value; and

dividing the base-N summed value by the number of bytes in the group to determine a base-N average value, a base-2 representation of the base-N average value defining the single byte.

4. The method of claim 3 wherein the base-N is base-10.

5. The method of claim 1 and further comprising the steps of:
forming the sequence of bytes; and
storing the sequence of bytes in the memory.

6. The method of claim 5 wherein the sequence of bytes is formed by digitizing a unique image.

7. The method of claim 6 wherein the unique image is a magnified image of an interior of a gem.

8. The method of claim 5 wherein the sequence of bytes is formed by digitizing a recording of a unique sound event.

9. The method of claim 8 wherein the unique sound event is a recording of a voice stating a phrase.

10. The method of claim 2 and further comprising the steps of:
forming the sequence of bytes; and
storing the sequence of bytes in the memory.

11. The method of claim 10 wherein the sequence of bytes is formed by digitizing a unique image.

12. The method of claim 11 wherein the unique image is a magnified image of an interior of a gem.

13. The method of claim 10 wherein the sequence of bytes is formed by digitizing a recording of a unique sound event.

14. The method of claim 13 wherein the unique sound event is a recording of a voice stating a phrase.

15. The method of claim 1 wherein the number of bytes in the sequence of bytes is a multiple of the number of bytes in the encryption key.

16. The method of claim 15 wherein the reducing step further includes the steps of:

assigning each byte in the sequence of bytes to one of a number of groups so that each group has one or more bytes, the number of groups being equal to the number of bytes in the encryption key;

reducing the number of bytes in each group to a single byte.

17. The method of claim 16 and further comprising the steps of:

forming the sequence of bytes by digitizing a unique image; and

storing the sequence of bytes in the memory.

18. The method of claim 16 and further comprising the steps of:

forming the sequence of bytes by digitizing a unique sound event; and

storing the sequence of bytes in the memory.

19. An apparatus that forms an encryption key that has a number of bytes, the apparatus comprising:

means for reading a sequence of bytes from a memory, the sequence of bytes having a number of bytes that is greater than the number of bytes in the encryption key; and

means for reducing the number of bytes in the sequence of bytes to be equal to the number of bytes in the encryption key.

20. The apparatus of claim 19 wherein the means for reducing further includes:

means for assigning each byte in the sequence of bytes to one of a number of groups so that each group has one or more bytes, the number of groups being equal to the number of bytes in the encryption key; and

means for reducing the number of bytes in each group to a single byte.